Stem cell research like picking stocks? We don't think so.

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A story by Nick Wade in Monday's New York Times rubbed some scientists the wrong way - and I must admit the piece was not too popular around CIRM headquarters.

Wade equated research funding with picking stocks. His idea is that a broad portfolio is bound to include some winners (he attributes this approach to the NIH and NSF) whereas attempts to only buy the big winners can produce a risky portfolio (an approach he attributes to CIRM).

Writing for the science portal Science 2.0, Michael White writes:

> This is not right." Wade goes astray in thinking of science in terms of hits and misses. Basic research is not like being at bat, with the occasional single base hit or home run being the exception in a sea of strikeouts.

Most research is simply conventional and incremental. Most of the time it's not a miss, a disaster, or a failure - it's a small, sometimes not too surprising addition to our knowledge of a subject. Most research projects and NIH grants end in success, not failure - but the successes are usually small. In fact, there probably aren't enough failures, because, unlike the venture capitalists Wade compares it to, the NIH is very unwilling to take risks in search of the spectacular winner. Funded projects are the ones almost guaranteed to work. CIRM grantee Paul Knoepfler at UC Davis also takes objection to the piece. His point: CIRM isn't just investing in one big thing. Three billion dollars to just fund one area of stem cell research, that would be narrow. But CIRM has funded an incredible range of research, from the most basic science to translational work, and in approaches spanning stem cell transplantation therapies to modeling disease, drug testing, and models of regeneration (the very research Wade suggests we should fund).

Knoepfler writes:

> Clearly [Wade] knows very little about CIRM and about stem cell research. He makes the argument that because CIRM only funds research in 'a single field' that chances are high that Californians will lose out. First, he is wrong that CIRM only funds one field. The breadth of research funded by CIRM spans a few dozen fields from cancer biology to neurological disorders, to heart disease, diabetes, HIV/AIDS, etc. Second, Mr. Wade ignores the substantial accomplishments that CIRM has already made in just its first few years. Where CIRM agrees with Wade's piece is in his suggestion that we look to how animals such as zebrafish and newts naturally regenerate, and use that knowledge to improve human regeneration. Deepak Srivastava from the Gladstone Institutes, who has been looking at tissue regeneration in mouse hearts, is making tremendous progress in part through CIRM funding (here is his research summary), as is USC's Gage Crump, studying zebrafish jaw regeneration as a model for bone regeneration (here is his research summary).

For people interested in seeing the range of what CIRM has funded, we have this searchable list of all our funded stem cell research awards. We also have this list of our rounds of funding, explaining the role that funding plays in creating CIRM's broad research portfolio.

A.A.

Tags: Srivastata, crump, university of southern california, Knoepfler, University of California Davis, Gladstone Institute, Comprehensive, New Faculty